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DEFENSE SYSTEMS MANAGEMENT COLLEGE

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INDIVIDUAL STUDY PROGRAM

AN OPTIMUM MARINE CORPS ACQUISITION MANAGEMENT STRUCTURE FOR THE LANDING VEHICLE ASSAULT (LVA) PROGRAM

Study Project Report
PMC 77-1

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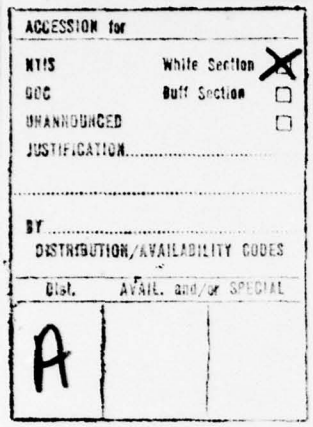

AN OPTIMUM MARINE CORPS ACQUISITION MANAGEMENT STRUCTURE FOR THE LANDING VEHICLE ASSAULT (LVA) PROGRAM

Individual Study Program

Study Project Report

Prepared as a Formal Report

by

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May 1977

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DEFENSE SYSTEMS MANAGEMENT COLLEGE

STUDY TITLE: AN OPTIMUM MARINE CORPS ACQUISITION MANAGEMENT STRUCTURE FOR THE LANDING VEHICLE ASSAULT (LVA) PROGRAM

STUDY PROJECT GOALS:

To examine current Marine Corps acquisition methodology in relation to historical amphibian tracked vehicle management, the existing organization of HQMC, and the implementation of MCO P5000.10, System Acquisition Management Manual. And to evaluate alternative management schemes and make specific recommendations for an effective and efficient management structure for the LVA program.

STUDY REPORT ABSTRACT:
The Marine Corps' LVA program is currently in the conceptual phase of the acquisition process. The program's high visibility, revolutionary technology, dollar thresholds, and priority for development in the Marine Corps have given concern to those involved in the program as to the applicability and efficiency of existing HQMC organization and Marine Corps directives to drive the program effectively.

The purpose of this report is to provide specific recommendations to the Commandant of the Marine Corps with regard to the management of the LVA program, a major weapons system acquisition as qualified by DOD Directive 5000.1. Evaluation of research documention and interviews, coupled with the author's personal experience in weapons system acquisition, were the basis for recommendations made in the report.

Conclusions reached as a result of the study provide the basis for specific recommendations, if which implemented, would provide for effective program management with minimal disruption to existing Marine Corps organizational structures and directives.

A proposed charter for management of the program is contained in the report.

SUBJECT DESCRIPTORS:
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EXECUTIVE SUMMARY

The purpose of this study project is to provide recommendations to the Commandant of the Marine Corps (CMC) for effective management of the Landing Vehicle Assault (LVA) program. Specific goals are: (1) to examine, briefly, historical amphibian tracked vehicle management philosophy and the result of same (SECTION III), (2) to examine current Marine Corps major weapons system acquisition methodology (SECTION IV), (3) to assess issues and alternatives (SECTIONS VI and VII), and (4) to provide recommendations for managing the LVA program (SECTION VIII).

The study project is important in that the Marine Corps is currently agonizing as to how best to manage the LVA program in view of significant monetary resources expended to date (and planned for the future), the high visibility of the program, and the revolutionary technology being explored for providing a quantuum improvement over the existing amphibian tracked vehicle, the LVTP-7, in the inventory. Though the Marine Corps has a current directive, Marine Corps Order (MCO) P5000.10 for major weapons system acquisition, there have been problems in implementing "the letter of the law" as defined in the MCO.

This report will attempt to illuminate for those in the decision-making chain that: (1) a problem does exist with the current LVA management scheme, and (2) it is possible to solve the problem with minimal disruption to existing organizational structures and directives.

The approach used in the report was to provide a brief description of the LVA's performance characteristics and program status, emphasizing that both the weapon system and program itself are exceedingly complex and involve substantial commitment of resources. Amphibian tracked vehicle management history

was explored, and results annotated, to provide a base with which to compare current and potential future management methodology. Finally, conclusions and recommendations were reached by considering key issues and alternatives resulting from examination of the following: (1) current Marine Corps weapons system acquisition structure, (2) guidance contained in MCO P5000.10, (3) a series of interviews held with individuals (active duty officers and civilians) possessing significant experience with past and present amphibian tracked vehicle programs, (4) a literature search consisting of examination of both internal (official and unofficial) and external Marine Corps documents, (5) individual research papers and study projects, (6) a variety of official military publications, orders and directives and (7) my personal experience in the weapons system acquisition process.

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SECTION I

INTRODUCTION

A. PURPOSE OF THE STUDY PROJECT

To provide recommendations to the Commandant of the Marine Corps for effective management of the Landing Vehicle Assault (LVA) program.

B. SPECIFIC GOALS OF THE PROJECT

The specific goals are:

1. To examine the current Marine Corps major weapons system acquisition methodology in relation to historical amphibian tracked vehicle management structure, the reorganization of Headquarters, Marine Corps in 1974, and Marine Corps Order P5000.10, which constitutes guidance for weapons system acquisition in the Marine Corps.

2. To analyze existing Marine Corps management methodology in the LVA program.

3. To evaluate alternatives for effective LVA program management and provide specific recommendations for implementation of an optimum management structure.

4. To provide a proposed charter, as appropriate.

D. ABBREVIATIONS

See Appendix A.

D. SCOPE AND LIMITATIONS OF THE REPORT

The scope of the report is confined to major weapons system acquisition in the Marine Corps regarding a specific program, the LVA. By necessity, it is not intended to completely familiarize the reader with Marine Corps-peculiar terminology, with a complete historical background regarding amphibian vehicle development in the Marine Corps, nor with a detailed explanation of weapon

systems acquisition as currently implemented under MCO P5000.10. Further, the author of this paper assumes that the reader will possess a more than casual acquaintance with the organizational structures and responsibilities of both Headquarters, Marine Corps and the Marine Corps Development and Education Command, Quantico, Virginia and experience in material acquisition, to include Research, Development, Test and Evaluation (RDT&E).

E. ORGANIZATION OF THE REPORT

The report is organized such that the reader is exposed to a description of the LVA and its program status (SECTION II); a brief history of amphibian tracked vehicle management in the Marine Corps (SECTION III); a discussion of the implications of Headquarters, Marine Corps reorganization in 1974 and implications of MCO P5000.10 supporting both DODD 5000.1 and the reorganization (SECTION IV); interview results (SECTION V); and finally, discussion of key issues (SECTION VI) leading to the alternatives, conclusions, and recommendations (SECTIONS VII and VIII), the ultimate goal of this study project.

SECTION II

LVA DESCRIPTION AND STATUS

A. DESCRIPTION

1. The LVA is envisioned as providing one of the principle means of tactical surface mobility for the landing force during both the ship-to-shore and subsequent-operations-ashore phases of the amphibious assault. The characteristics and capabilities of the vehicle will significantly increase the survivability of both the amphibious shipping and the surface assault elements of the landing force. The water speed and range of the vehicle will enable a more flexible approach to the amphibious assault, allowing maximum use of sea areas for ship manuever and optimum standoff for launch. In addition, introduction of the LVA will expose a significant expanse of shore line to the threat of surface assault, facilitating concealment of the actual beach sites selected for the landing. These factors will complicate the enemy defensive plan while enhancing the ability of the landing force to circumvent or overcome the defensive systems with which it is faced. During subsequent operations ashore, the LVA will exhibit an aggressive combat capability providing speed, troop protection, cross-country mobility, and an offensive firepower capability. The LVA is being designed to replace the LVTP-7, which is the current amphibian assault vehicle, during the 1986-1989 time frame.

2. The requirement for the LVA was generated by Tentative Specific Operational Requirement (TSOR) MOB-1.05T in May of 1973.[1] The baseline characteristics of the LVA, and the LVTP-7, the vehicle to be replaced, are as follows:

Table 1. LVA CHARACTERISTICS

SPEED	
WATER	25-40 MILES PER HOUR (SEA STATE 2)
LAND	40-55 MILES PER HOUR
RANGE	
WATER	75 MILES
LAND	250 MILES
DIMENSIONAL CONSTRAINTS	
LENGTH	33 FEET
WIDTH	11 FEET
HEIGHT	11 FEET
PAYLOAD	
TROOPS	25-34
CARGO	8,000 POUNDS
WEIGHT GOAL (WITH CARGO)	55,000 POUNDS
ARMAMENT	20-30 MM
	POWER TURRET
	STABILIZED
	COAXIAL MG
ARMOR	SMALL ARMS
	AIR BURSTS
	ANTI-PERSONNEL MINES
	SPALL REDUCTION

Table 2. LVTP-7 CHARACTERISTICS

SPEED	
WATER	8 MILES PER HOUR
LAND	40 MILES PER HOUR
RANGE	
WATER	56 MILES
LAND	300 MILES
DIMENSIONS	
LENGTH	26 FEET 3/4 INCHES
WIDTH	10 FEET 8 3/4 INCHES
HEIGHT	10 FEET 8 1/2 INCHES
PAYLOAD	
TROOPS	25
CARGO	10,000 POUNDS
WEIGHT	52,148 POUNDS
ARMAMENT	.50 CAL. MACHINE GUN
	POWER TURRET
	UNSTABILIZED
ARMOR	SMALL ARMS
	AIR BURSTS
	ANTI-PERSONNEL MINES

3. The three unique design features of the LVA are its hydrodynamic design, the water propulsion system, and the power pack. The hydrodynamic design includes features to reduce drag at high speed while retaining rough water and surf-crossing capability. These features must be incorporated in an overall vehicle envelope that is size-constrained by shipping and rail transportation vehicles and by land mobility considerations. The water propulsion system must provide the high thrust to meet the waterspeed requirement. The power pack requirement is perhaps the most unique and most demanding feature for it must incorporate high installed horsepower for high water speed, engine cooling both while waterborne and on land, and an engine aspiration and exhaust system. All these requirements must be met within a size-constrained hull while still providing space for troops, the weapon station, for other machinery, and for maintenance accessibility.

4. To expand upon the power pack requirement, approximately 3000 horsepower is required for the water mode versus approximately 500 horsepower for the land mode of operation. No current production engine can provide these power ranges within the special weight, volume, salt water environment, maintainability, and cost constraints associated with this vehicle. An analysis of the requirement identified the stratified charge rotary engine as the most promising single candidate among possible new engines for LVA application. In February 1977, a 4-year contract (approximately 25 million dollars) was awarded to Curtiss-Wright Corporation for advanced development of the stratified charge rotary combustion engine. This contract is incrementally funded and structured to require periodic evidence of successful progress. Several new or advanced development prototype engines are being examined as possible backups. These include derivations of the XM-1 (gas turbine) and Leopard

(diesel) tank engines, and a production commercial diesel engine. However, each candidate backup engine has significant shortfalls within the special constraints concerning space, environment, and maintenance requirements, as well as cost.

B. PROGRAM STATUS

1. In April of 1975 a Special Marine Corps Systems Acquisition Review Committee (MSARC) was held, the results of which approved the initial conceptual effort towards satisfying the operational requirement, TSOR MOB 1.05T, for a high speed amphibian vehicle.[2]

2. Currently, the LVA program is in the Conceptual Phase of the weapons system acquisition process. Milestone I approval, entrance into the Validation-Demonstration Phase, is scheduled for FY 79. Three contractors were funded in 1975. They examined feasibility by designing complete systems and conducted towed model tests to establish power requirements and waterborne ride characteristics. The contractors are Bell Aerospace, FMC Corporation, and Pacific Car and Foundry. Two, possibly three, contractors will build advanced development prototypes, and only one contractor will be used in the full-scale development phase. The Chief of Naval Material has designated the Naval Sea Systems Command (NAVSEA) as the Principal Development Activity (PDA) for the program. Within NAVSEA, the program is currently being managed within the Research and Technology Directorate (SEA-03)[3] and will transfer to PMS-300, the Combatant Craft, Service Craft and Amphibian Acquisition Project[4] prior to entrance into Full-Scale Engineering Development, Milestone II. Milestone II is planned for FY 1983.

3. Dollars involved in the program to date and planned for future efforts are significant. Needless to say, the anticipated expenditure of these dollars

fully qualifies the LVA as a major Weapons System acquisition in accordance with the thresholds defined by DODD 5000.1. Development cost is projected to be 150-200 million dollars. Procurement cost is anticipated to be 500 million dollars.

SECTION III

HISTORICAL AMPHIBIAN TRACKED VEHICLE MANAGEMENT

A. BACKGROUND

1. It is not the intent here to provide detailed background information with regard to amphibian vehicle development since 1940. An excellent synopsis of this may be found in other documentation.[5] However, it is necessary to emphasize that management and technical problems did exist as the Marine Corps pursued the LVTP-5 development, which was a program initiated in 1950 to meet the need for an amphibian vehicle in the late 1950's and 1960's.

2. "During 1948 the Marine Corps had redesignated the Bureau of Ships Test and Experimental Unit as a Marine Corps Test Unit under the technical control of Bureau of Ships. Administratively the unit was carried on the rolls of an existing unit at Marine Corps Base, Camp Pendleton, California. Bureau of Ships continued to budget for the support of this unit until 1953. At this point the Marine Corps assumed responsibility for budgeting. Bureau of Ships continued to have technical control of the unit. In 1958 the mission of the Marine Corps Tracked Vehicle Test and Experimental Unit was changed as follows: "As directed by the Commandant of the Marine Corps and Chief, Bureau of Ships to test, develop and experiment with Amphibian Tracked Vehicles and affiliated equipment". The basic reason for the establishment of this unit in 1948 was to provide a field test agency which could conduct both technical (engineering) and service tests of Amphibian Tracked Vehicles for the Marine Corps and its technical agent, Bureau of Ships...Direct liaison between the Bureau of Ships and the Officer in Charge, Marine Corps Tracked Vehicle Test and Experimental Unit was authorized."[6]

3. By 1960, any Marine Corps management activity with regard to amphibians

ceased to exist. The USMC had no one at the HQMC level who would serve as a coordinator or integrator of tasks relative to amphibians. In November 1963, the Assistant Chief of Staff (AC/S), G-4 for the Marine Corps developed a staff study[6] which served to quantify managerial problems and made specific recommendations for solving the problems. In essence, the staff study concluded that the existing method of managing assault amphibians programs was inadequate; that formal project management exercised by the Marine Corps would be too costly in terms of fiscal and personnel resources; and that management of amphibian vehicles by the Chief of Naval Material under the supervision of one agency at HQMC would be the most cost-effective and least disruptive to the existing Marine Corps organizational structure.

4. In late 1963 CMC officially requested the Navy (BuShips) to cancel an existing contract for the LVTPX-11, which was being developed to replace the LVTP-5. In addition, CMC advised that he was the ultimate authority on all amphibian vehicle matters and would monitor and coordinate all matters relative to LVT's from R&D through disposal. Further, CMC assigned responsibility to the Coordinator, Marine Corps Landing Force Development Activities (CMCLFDA) (now the Development Center, MCDEC) through him (CMC) for all phases of R&D through Engineering Development for LVT programs[7] and Bureau of Ships (now NAVSEA) was to be responsible for all technical aspects of Marine Corps approved programs coordinated and monitored by HQMC. In addition, CMC advised the Bureau of Ships that control of the Marine Corps Tracked Vehicle Test and Experimental Unit (now Amphibian Tracked Vehicle Branch (ATVB), Development Center) was to be transferred to CMCLFDA, Quantico (now the Development Center, MCDEC).[7]

B. MANAGEMENT IMPACT

1. What was the impact of all this activity? In essence, the AC/S, G-4* Major General L.F. Chapman, Jr. saw a need for re-emphasis and re-orientation of Marine Corps influence on Amphibian Tracked Vehicles matters in order to ensure the availability and supportability of the vehicles meeting Marine Corps requirements. The National Security Act of 1947 specifically assigned the Marine Corps the responsibility for developing, in coordination with the other services, "those phases of amphibian operations that pertain to the tactics, techniques, and equipment used by landing forces". Active dedicated management was necessary to ensure that this responsibility was re-affirmed for amphibian tracked vehicles.

2. Under this successful management scheme, the LVTPX-12 was born in 1964 and successfully carried through to production with the Fleet Marine Force introduction of the LVTP-7, the replacement for the LVTP-5. First unit delivery was in August 1971 with concluding vehicle production in March 1974[5]. It is interesting to note that the LVTP-7 program was initiated in Full Scale Engineering Development and by-passed the Validation-Demonstration phase of the acquisition process. Primarily this was because of the experience gained within the Bureau of Ships during the LVTPX-11 program. Additionally, and not the least in importance as a contributing factor to the successful management of the LVTP-7 program, the AC/S, G-4 was given the responsibility as general staff program coordinator for three (3) budget appropriations: RDT&E, PMC, and O&MMC.[6]

*NOTE: In the 1963 period, HQMC organizational structure reflected staff agencies oriented toward supporting CMC through functional activity in areas such as personnel, intelligence, operations, and logistics, etc. For example, supporting CMC in the area of personnel was the AC/S, G-1; in intelligence, AC/S, G-2; in operations, AC/S, G-3; in logistics, AC/S, G-4, etc.

3. Thus, with centralization of integration, coordination, authority and direction of LVT activity, concomitant with the responsibility as appropriation coordinator, the AC/S, G-4 was able to effectively manage a critical Marine Corps weapon system acquisition program. Note: The term "program sponsor" was not used during the time of the LVT management re-organization, but the AC/S, G-4 was, in effect, the "user"; hence, he also was the "sponsor" as we know the term today.

4. It is also interesting to note that in 1967 the Marine Corps actively sought to establish a Project Management organization reporting directly to the Chief of Naval Material[8]. The request was denied by the Chief of Naval Material for three reasons[9]. These were:

(1) PMS-84, Landing and Amphibian Ships Acquisition Project, NAVSHIPS (now NAVSEA) was administering to LVT needs.

(2) LVT's were not of unusual importance at that time.

(3) Pursuance of the LVT program did not require extensive coordination among other NAVMAT Commands.

SECTION IV

HQMC REORGANIZATION AND MCO P5000.10

A. HQMC REORGANIZATION

1. In April of 1974, the reorganization of HQMC was effected. Generally, the results were to eliminate the Assistant Chief of Staff agencies and develop various departments, divisions, and directorates as staff advisors to the Commandant. For example the reorganization, as known today, consists of the Manpower Department, Installations and Logistics Department, Plans and Operations Department, Requirements and Programs Division, Research, Development and Studies Division, etc. Departments and major divisions are lead by officers of General rank and are designated as "Deputy Chief of Staff (DC/S)" in their roles as advisors to the Commandant; for example, DC/S Manpower; DC/S, Installations and Logistics, etc.

2. The reorganization eliminated the AC/S, G-4 as a staff agency, which was clearly delineated in 1963 as the one agency in HQMC responsible for the coordination and supervision of the Assault Amphibian program. Also the reorganization had another effect; namely budget appropriation responsibility was altered. Presently, the DC/S, RD&S sponsors and manages the RDT&E appropriation, and the DC/S, for I&L sponsors and manages the PMC and O&MMC appropriations. The once centrally organized activity for amphibian tracked vehicles is now fractionalized, both in authority and in control of dollars.

B. MCO P5000.10

1. In June of 1974, Marine Corps Order (MCO) P5000.10, Systems Acquisition Management[10] was promulgated primarily for implementation of DODD 5000.1. It was timely with regard to the HQMC stafff reorganization and subsequent impact on Amphibian Tracked Vehicle efforts.

2. It is now necessary to define specific responsibilities as annotated in MCO P5000.10[10] for managing weapon system acquisition in the Marine Corps in order to further develop this paper's objective.

a. Acquisition Program Sponsor (APS). "The director of a major staff office at HQMC who, by mission, has primary responsibility for ensuring the achievement of an operational capability for a given material system, function, or task." The APS is the advocate of the system, the "user" if you will, and has responsibility for overall direction and supervision of programs within HQMC. He also has the responsibility for monitoring and supporting the execution of responsibilities of project managers and acquisition managers of other services for Marine Corps acquisitions, as required. The APS for the LVA is the DC/S, Operations and Training (O&T).

b. Acquisition Sponsor Project Officer (ASPO). The ASPO is an officer within the staff of the APS who assists the APS in carrying out his responsibilities.

c. Acquisition Project Officer (APO). The APO is a staff officer designated by the DC/S, Installations and Logistics (I&L) (or DC/S, Aviation) and is responsible for "the internal management and coordination of the logistical, technical, and engineering aspects of individual acquisition projects." The APO is responsible for the integrated logistics support (ILS) aspects of the acquisition.

d. Development Coordinator (DC). A DC is assigned, under the cognizance of the DC/S, RD&S, to execute or coordinate specific RDT&E administrative tasks in support of acquisition programs.

e. Development Project Officer (DPO). Under the cognizance of the CG, MCDEC (Development Center), the DPO is responsible for managing, monitoring,

or coordinating RDT&E effort in specified acquisition programs including programs of other services in which the Marine Corps has declared an interest.

C. DISCUSSION

1. For purpose of clarification and further discussion, transition is made from using the terminology "Amphibian Tracked Vehicle" to the "Landing Vehicle Assault (LVA)".

2. We now see that the APS (DC/S, O&T) is responsible for over-all planning, coordination and direction of the LVA program. He is the advocate. Further examination of his guidance reveals that he will monitor and support project managers of other services for Marine Corps acquisitions and that he may make arrangements for liaison, monitoring, coordination, influence, or direct management participation by CG, MCDEC, as recommended by CG, MCDEC, on an ad hoc basis. The APO (DC/S, I&L) is responsible for the internal management of logistical, technical, and engineering tasks of individual projects with emphasis on planning and ILS associated with the LVA. The Development Coordinator, (DC/S, RD&S), is responsible for coordinating RDT&E administrative and management tasks in support of the LVA program. And the Development Project Officer in the Development Center under CG, MCDEC manages, monitors or coordinates RDT&E effort in the LVA program. The previously mentioned officers or respresentatives make up the substance of the Acquisition Coordinating Group, which is defined below:

a. Acquisition Coordinating Group (ACG).[10] A group of key project officers of HQMC staff principals and CG, MCDEC who have distinct responsibilities related to systems acquisition management is called the ACG. The ACG consists of: the Acquisition Sponsor's Project Officer (ASPO); the Acquisition Project Officer (APO); the Development Project Officer (DPO); and the Development

Coordinator (DC). The ACG meets informally to plan, review, and monitor the overall direction and progress of an acquisition program and to facilitate coordination between the Marine Corps and the developing service or agency.

3. The Principal Development Activity (PDA) for the LVA program is NAVSEA. Specifically, the program currently resides in the R&T Directorate (SEA-03). SEA-03 is responsible for the technical aspects of the LVA program; however, as a manager, he must tie together many aspects of the program, and he must be aware of what is transpiring technically on the Marine Corps side of the house. Further, he must be provided program direction from one source only and conversely, he must request selected effort/planning/studies, etc., in support of the LVA program, which are Marine Corps peculiar, from a single point of contact.

4. It must be pointed out here that the Marine Corps does not control either 6.1 or 6.2 dollars of the RDT&E appropriation. The Chief of Naval Research and Chief of Naval Material, respectively, take into account Marine Corps requirements for effort in these areas and expend the necessary resources to meet the requirements; however, the LVA program manager within NAVSEA can unilaterally request (and be provided) 6.2 dollars for effort regarding the LVA program without the Marine Corps being aware of the expenditures.

5. On the other side of the coin, both the APO and the DPO can request, and be provided, 6.3 dollars (the LVA is currently expending both 6.2 and 6.3A resources prior to Milestone I) to pursue individual efforts in support of the LVA program without either one knowing what the other is pursuing (possible duplication could result). To make it worse, the program manager within NAVSEA would not have to know (and sometimes indeed does not know) the objectives of the Marine Corps resource expenditure, particulary in the areas of studies

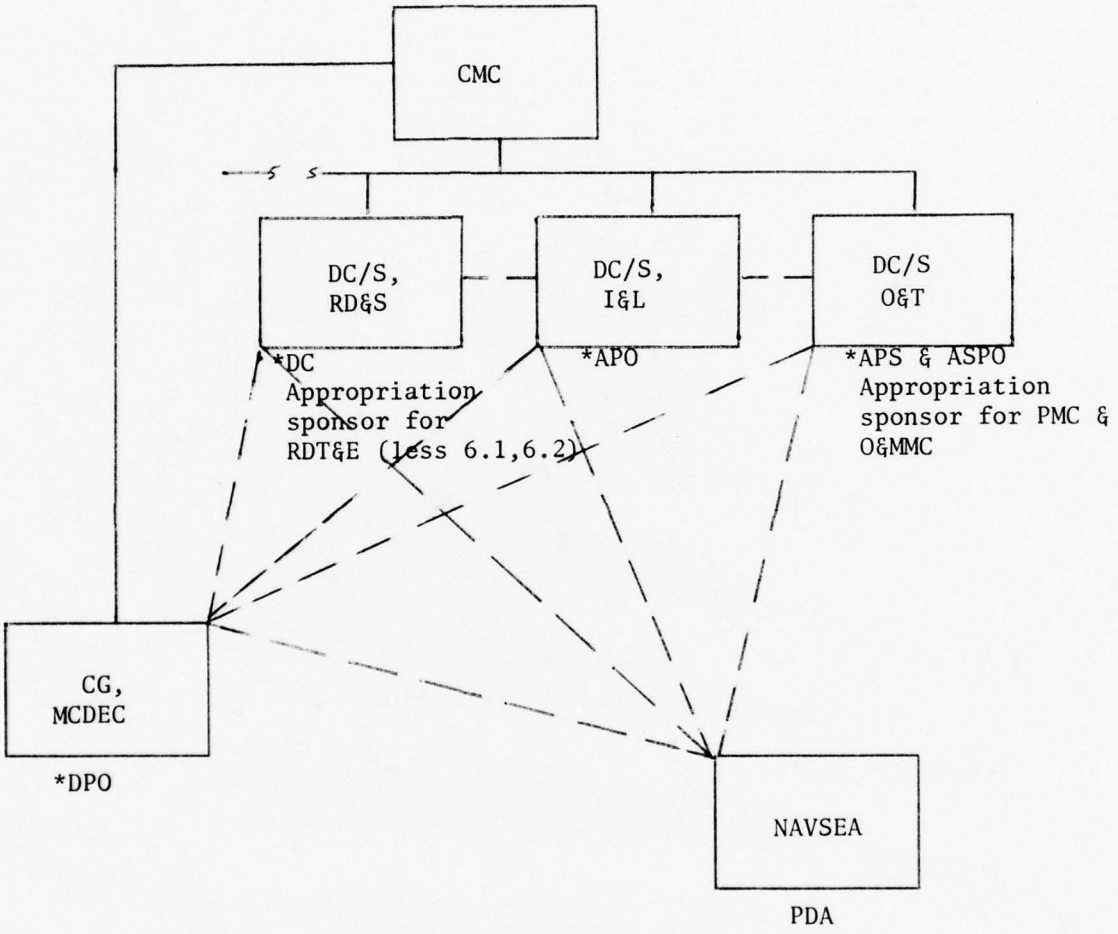
and related efforts in support of Marine Corps mid-range and long range objectives.

6. Figure 1 will hopefully permit the reader to examine the previously mentioned relationships existing with the LVA program. It is reiterated that the program qualifies as a major program under DODD 5000.1 with total expenditures through production of almost 1 billion dollars.

D. IMPACT

1. It is my thesis that the LVA program, a program with high visibility and not an insignificant dollar amount attached, a program given highest priority by the CMC for development, is being managed through committee. Theoretically, the APS would provide the overall direction and guidance; however, the incumbent action officer in behalf of the APS has no staff and is the action officer on at least five other Marine Corps acquisition programs. Interestingly enough, the Service Life Extension Program for the LVTP-7, involving a signficant amount of resources, for which the APS is DC/S, O&T, has a thought-provoking managerial twist. DC/S, O&T has abdicated his role according to MCO P5000.10 by delegating his authority to DC/S, I&L with "full understanding that representatives of DC/S, I&L (Code LMW) have authorization to speak for the program sponsor in this regard".[11] With these considerations in mind for the LVTP-7 program, the APS has informally abdicated his role to the DPO at Quantico regarding the LVA program.

2. The DPO would therefore appear to be the central point of contact for the LVA program. This assumption is illusory. Though authorized direct liaison with the PDA at NAVSEA, and possessing a skeleton staff, any significant decisions to be made must be approved by the other members of the ACG, who are in the chain of approval for the particular action item on the agenda



* Members of Acquisition Coordinating Group (ACG)

- - - Indicates LVA program lines of communication and guidance

Figure 1

and only after the DPO has gained the approval of the Chief, Mobility and Logistics Division and either the Chief of Staff or the Director of the Development Center (who may go to CG, MCDEC if the issue is important enough). In addition, the Planning, Programming and Budgeting aspects of the program must wend their way through the inexorable web of approval at MCDEC, Quantico prior to running the gamut of other Marine Corps programs competing for scarce resources in and among the separate appropriation sponsors at the HQMC level. The DPO controls zero dollars. An almost identical situation exists within the 6.2 arena. The DPO must compete with the Development Center's overall requirements for exploratory development, then must pass through an approval cycle at HQMC before DC/S, RD&S passes the overall Marine Corps request to the Chief of Naval Material. One aspect in the DPO's favor is the fact that the Amphibian Vehicle Traning Branch (AVTB) reports directly to the M&L Division at Quantico, thus providing for direct access to technical/operational resources for test and evaluation.

3. The APO has had a significant effect on the LVA program mainly because of a dedicated amphibian vehicle staff within Code LMW of the I&L Department and a continuum of technical expertise; however, MCO P5000.10 calls out his role as being supportive in nature with emphasis on ILS in the RDT&E process. He is not the program coordinator/administrator for the LVA program. Further, by definition, I&L administers the procurement and operational support aspects of weapons system acquisition.

4. From previous discussion the conclusion may be drawn that the NAVSEA program manager is in a position to receive guidance from a multitude of sources. Further, he may not receive specific direction without committee (the ACG) approval at the HQMC level. MCDEC approval of the DPO's position

prior to committee meetings may also be necessary and that program activity may take place without overall direction and guidance.* Therefore, the carefully planned, implemented, and orchestrated management structure for amphibian tracked vehicle acquisition introduced by Major General Chapman in 1963 has been seriously deformed. And the existing LVA management modus operandi does not appear to be either in the spirit or the intent of DODD 5000.1 regarding a major weapons system acquisition.

*NOTE: The ACG in many instances is a forum for discussion only. Decisions oftentimes are not made until committee members disburse to gain their superiors' approval of contemplated action.

SECTION V

INTERVIEW RESULTS

A. METHODOLOGY

1. It was originally intended to utilize a structured interview methodology. A decision was made to change methodology after the initial interview mainly because the LVA management issue is exceedingly complex, most interviews were emotionally involved, and most interviewees wished to state opinions resulting from years of experience both in the LVTP-7 development and the LVA program to date. All were refreshingly candid during the interviews.

B. RESULTS

1. All interviewees were in complete agreement that something had to be done with regard to the existing LVA management situation, which was too complex and unwieldy and resulted in extensive time delays in the decision-making process. A single point of contact for the LVA program is necessary within the Marine Corps as viewed by all.

2. Control of dollars was emphasized by some as a means of ensuring firm program direction and guidance from within the Marine Corps to the Navy program manager. This was emphasized as being a significant factor in the Navy's providing the LVTP-7 on schedule and within budget. The fact that the LVA program has two budget appropriation sponsors (DC/S, RD&S and DC/S, I&L) within the Marine Corps was cited as being a problem. Budgetary control was deemed absolutely necessary.

3. Answers varied when interviewees were asked how they would formulate a management structure for the LVA. Responses ranged from designating I&L as the program driver, designating and staffing O&T to perform its function in accordance with MCO P5000.10, initiating a separate LVA staff reporting directly to the Chief of Staff of the Marine Corps, forming a branch in the

O&T Division and staffed with representatives from the Acquisition Coordinating Group members, and to doing business as usual under MCO P5000.10. A listing of varied opinions are provided below:

a. MCO P5000.10 would be effective if staff personnel assets were commensurate with the actions required to implement the Marine Corps order.

b. Continuity, technical expertise, and experience would serve as a driving factor in determining from whence direction would derive.

c. The chain of command at MCDEC, Quantico does not lend itself to timely action in the case of the LVA program.

d. MCDEC, Quantico should be utilized as a resource only for utilization of the AVTB for testing and a springboard to conducting studies and analyses peculiar to the LVA. For example, develop the LVA Concept of Operations, Doctrine of Employment, etc.

e. Precedence was established for LVA program management emphasis as demonstrated in the 1963 management reorganization, the results of which were more than satisfactory in the case of the LVTP-7 development and delivery to the FMF.

f. The ACG was cited as being without authority since decisions agreed to by participants had to be staffed through, and agreed to, by Department/ Division heads before implementation.

g. "The Marine Corps has got to understand that Weapons System Acquisition is complex and can not be correlated with battlefield methods or procedures."[13]

h. Personalities were cited as being an issue to be considered as "this was the only way things get accomplished anyway".[16]

i. A Project Manager is not necessary, or desirable, at the HQMC level in any case.

SECTION VI

KEY LVA MANAGEMENT ISSUES

A. ISSUES. As a result of examination of the Amphibian Program background, interviewee conclusions, and personal evaluation of LVA program complexity, both technically and managerially, the following are determined to be key issues:

1. Does the precedence established for management of Amphibian Tracked Vehicles in 1963 apply to the existing environment?

2. Should the Marine Corps deviate from pursuance of major weapons system management as touted in MCO P5000.10? If so, how?

3. Should the role of the Development Center, MCDEC be tailored specifically for the LVA program?

4. Should an exception be made in the case of the LVA with regard to budget appropriation structure as existing at HQMC today? If so, how?

5. Should the LVA program be projectized at the HQMC level?

B. DISCUSSION

1. The management concept advocated in 1963 for Amphibian Tracked Vehicles was applicable at that time and keyed to the environment; i.e., previous problems in LVT management and the existing HQMC organizational structure and responsibilities. In today's environment; that is, competition for dollars among programs and the current HQMC organizational structure, it may be infeasible to reconstruct such a "big Daddy" at the HQMC level without perturbing existing responsibilities throughout the HQMC staff and MCDEC. Therefore, conceptually, the 1963 analysis is applicable today; it remains for the inception of a realignment and method of coordinating and integrating functions necessary (tailoring of the existing management structure) to

achieve a similiar result.

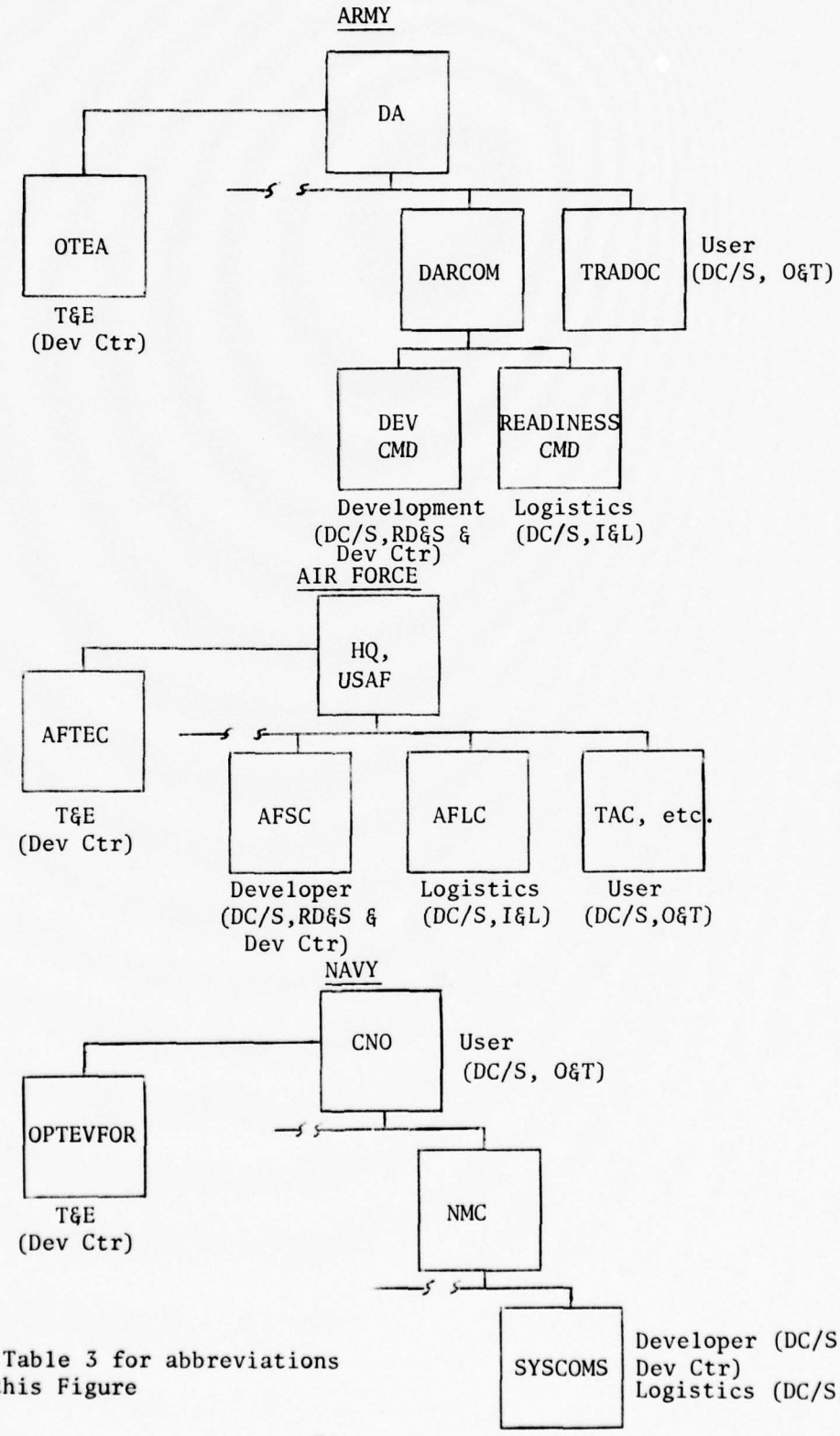
2. MCO P5000.10, generally an acceptable framework for weapons systems acquisition, provides a starting point for achievement of the fielding of equipment for the Marine Corps; however, it does not permit flexibility for tailoring specific major systems acquisition programs (those qualifying as such in DODD 5000.1). For example, the LVA has the highest priority for Marine Corps R&D resources and the LVA program and development, concomitant with the guidance provided by the National Security Act of 1947, is totally qualified for management under DODD 5000.1. Further, MCO P5000.10 acknowledges the necessity for a single point of contact. Unfortunately existing staffing does not permit execution of the guidance in MCO P5000.10.

3. The role of the MCDEC and Development Center, Quantico are defined by current directives. CG, MCDEC reports directly to the Commandant of the Marine Corps. Theoretically then, CG, MCDEC can advise the Commandant of the Marine Corps as to RDT&E matters since the Director, Development Center works directly for him. However, actual day-to-day working direction within the Development Center, and the vast majority of R&D guidance from higher headquarters emanates from DC/S, RD&S. This brings us directly to the point of the LVA program decision flow. The approval chain is from CG, MCDEC to DC/S, RD&S as staff officer of CMC. Conversely, direction regarding the LVA program may be received from both CG, MCDEC and DC/S, RD&S. By the time the guidance has been received by the Development Project Officer, it has been screened by the Director and/or the Chief of Staff of the Development Center. This approval/direction chain is not conducive to timely decision-making for a major weapons system acquisition.

The Development Center has the responsibility for pursuing RDT&E in

behalf of CMC. By definition, this includes activity through 6.4, Full-Scale Engineering Development. Figure 2 compares the other Services' general organizations for pursuing weapons system acquisition and illustrates User, Development, Testing and Evaluation, and Support functions. Annotated in parentheses are the existing Marine Corps agencies and/or staff sections having primary responsibility in the LVA program.

Note that in each instance, the "user" or "sponsor" is strictly set apart from the developer, and in no case is he the development or logistics point of contact or integrator. This does not mean to infer, nor should it be assumed, that the user is not an important part of the acquisition process. The opposite is true. Note also that the Army and Air Force pursue their systems acquisition at a Command level for development and a Command level for Logistics. Again, this is not meant to infer that these efforts are pursued unilaterally in a vacuum from one another. The Navy pursues its acquisition at a Command level with logistics functions inherent, by Division, within each Systems Command (there is no separate Logistics Command at this writing, although one is being considered in an on-going organizational study). The points to be made are that other Services have a user (sponsor) community and separate (but with close coordination) Development and Logistics communities. All Services have a separate Test and Evaluation Agency which reports to higher authority without having to go through the Developing activity. These organizations function within themselves and in accordance with their mission to achieve the desired results. Responsibilities for development (through 6.4) are assigned to a specific organization/division whereupon the product is transferred to another organization/division for subsequent procurement and support throughout the system life cycle (through disposal). This procedure



Note: See Table 3 for abbreviations on this Figure

Figure 2

ARMY

OTEA	OPERATIONAL TEST AND EVALUATION AGENCY
TRADOC	TRAINING AND DOCTRINE COMMAND
DARCOM	DEVELOPMENT AND READINESS COMMAND
DA	DEPARTMENT OF THE ARMY

AIR FORCE

AFTEC	AIR FORCE TEST AND EVALUATION CENTER
AFSC	AIR FORCE SYSTEMS COMMAND
AFLC	AIR FORCE LOGISTICS COMMAND
TAC	TACTICAL AIR COMMAND
HQ, USAF	HEADQUARTERS, U.S. AIR FORCE

NAVY

OPTEVFOR	OPERATIONAL TEST AND EVALUATION FORCE
NMC	NAVAL MATERIAL COMMAND
SYSCOMS	SYSTEMS COMMANDS
CNO	CHIEF OF NAVAL OPERATIONS

MARINE CORPS

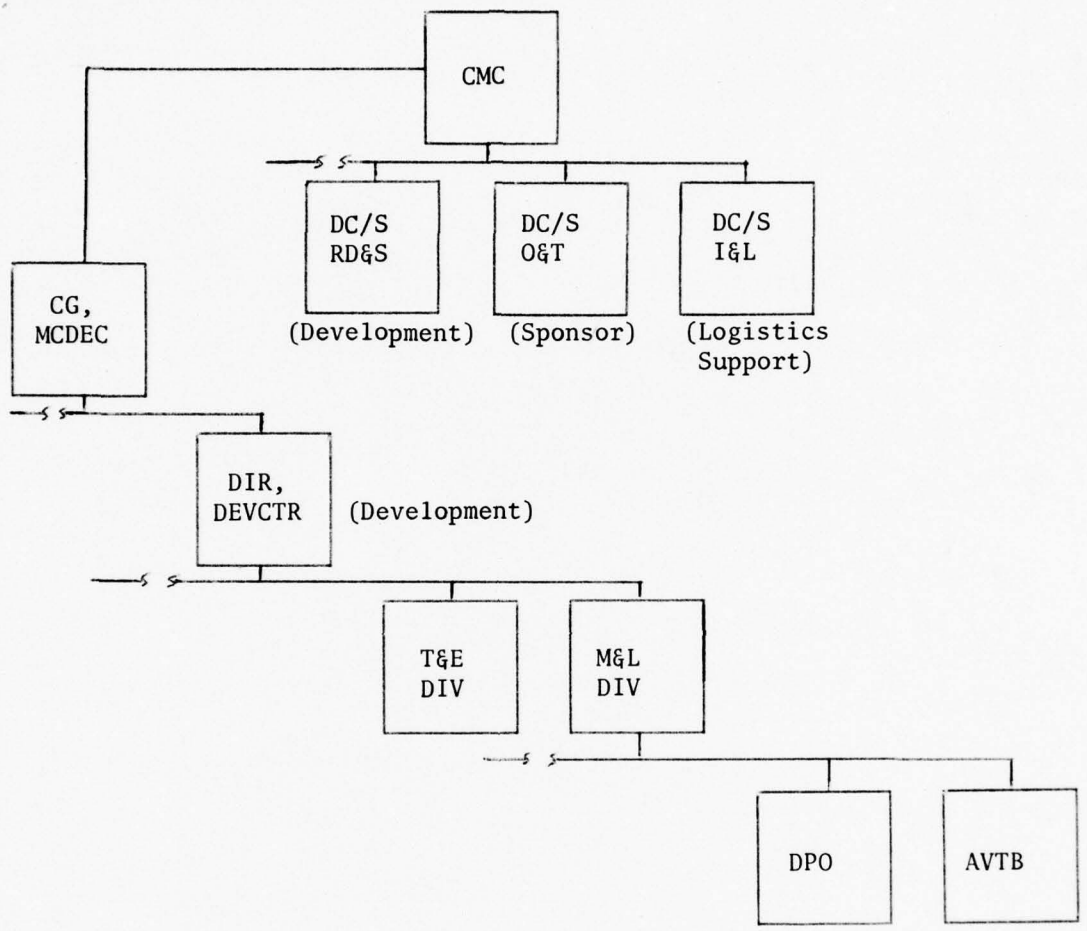
DEVCTR	DEVELOPMENT CENTER
DC/S, RD&S	DEPUTY CHIEF OF STAFF FOR RESEARCH, DEVELOPMENT & STUDIES
DC/S, I&L	DEPUTY CHIEF OF STAFF FOR INSTALLATIONS AND LOGISTICS
DC/S, O&T	DEPUTY CHIEF OF STAFF FOR OPERATIONS AND TRAINING

Table 3

is also consistent with standard commercial industry organization practice. Now observe the Marine Corps' structure for Weapons System Acquisition, which is shown in Figure 3.

4. The existing funding appropriation structure within the Marine Corps is not inconsistent with those of other Services. However, under the current method of managing the LVA program, dollars may be expended for R&D efforts (RDT&E appropriation) or planned and programmed for procurement (PMC appropriation) without any centralized direction. Further, allocation of dollars is continuously challenged at various levels of both CMC and MCDEC. The challenging of dollars is not unhealthy. Competition is keen for scarce dollars in today's environment wherein priority of objectives arises in conjunction with other requirements and acquisition programs. The lack of a centralized agency or activity to provide a coordinated and integrated program funding plan, to be given resource priority, and capable of allocating those resources is cause for concern in a major weapons system acquisition. Necessary to the successful pursuit of the LVA weapons system acquisition is then, (1) a validated priority for development and procurement resources, (2) central coordination of guidance and direction with regard to the allotment of allocated resources, (3) central coordination of planning for required funding for all LVA-related budget appropriations and, (4) upon successful translation of normal PPBS activity at HQMC and upon receipt of budget authority, LVA program dollars be made available for allotment/commitment by a single activity or point of contact.

There is no reason to believe that the present appropriation structure is not workable; however, selected internal Marine Corps actions would assist in ensuring the LVA program's success in this regard (6.3/6.4, PMC, O&MMC).



A. RD&S has development responsibility and passes to MCDEC (Development Center); however, retains authority and dollars (RDT&E appropriation).

B. CG, MCDEC has direct access to CMC; however, with authority vested in RD&S, through RD&S for development matters.

C. T&E comes under Director, Development Center as organizationally co-equal with the M&L Division's organization for LVA development.

D. There are no Project Managers in the Marine Corps hierarchy; however, other Services may have Marine Corps Project Managers.

E. The chain of approval and guidance/direction receipt for LVA Development Project Officer (DPO) action should be noted.

Figure 3

A problem does exist, however, at the NAVSEA (PDA) level, wherein 6.2 expenditures regarding the LVA should be undertaken with the Marine Corps' knowledge. Keep in mind that the Development Center is given responsibility for exploratory development in the Marine Corps (not withstanding DC/S RD&S necessary approval) and may request NAVMAT to fulfill its requirements; however, NAVSEA may also pursue 6.2 in fulfillment of its obligation as PDA. Someone, somewhere must know the extent of 6.2 exploratory development in behalf of the LVA. 6.1, Basic Research, is addressed here as being a distinct possibility for LVA efforts; however, it is highly unlikely at this writing. Should this avenue be utilized, however, an identical situation could exist within the Office of Naval Research.

5. Project Management in the Marine Corps at the HQMC level, though theoretically authorized under current DOD regulation, may not be feasible due to numerous factors normally associated with PM staffs and functional experience in other services, whether it be a lean or strong matrix, or vertical alignment self-sufficient in its capability to execute all aspects of a weapons systems acquisition. Personnel and functional resources within the Marine Corps do not militate in favor of such an organization. This does not preclude the assignment of a Marine Corps Project Manager within another Service's acquisition structure under select circumstances as agreed to by the other Service. The vocalizing of Marine Corps requirements, guidance, and/or direction when Marine Corps financial resources are involved; however, is desirable and necessary to ensure timely action on the part of the PM, wherever he is located. It is emphasized that the PM is mainly driven by three major considerations during the weapons system acquisition process. These considerations are to achieve the required technical performance and deliver the item to the operating forces on schedule and within allowable, affordable cost over the life

cycle of the weapon system; therefore, a point of contact in the Marine Corps would contribute materially to the realization of a viable product in keeping with the PM's ultimate considerations.

SECTION VII

ALTERNATIVES FOR LVA MANAGEMENT

The alternatives, as presented below, are not established in priority sequence; however, each is deemed appropriate for consideration in the determination of which management structure is finally recommended for the LVA program.

Alternative #1. Retain existing method of managing the LVA program within MCO P5000.10 guidelines.

A. Advantages.

(1) No impact on MCO P5000.10 system acquisition guidelines.

(2) Direct line to the Chief of Staff.

(3) Does not require implementing directive or charter.

B. Disadvantages.

(1) Existing conflict remains the same.

(2) Acquisition Sponsor Project Officer does not have a staff and is encumbered with other projects.

(3) No technical expertise available at the coordinating/direction level.

(4) Navy PDA still required to communicate with O&T, I&L, RD&S, and the DPO at Quantico for guidance and direction.

Alternative #2. Establish point of contact within DC/S, O&T.

A. Advantages.

(1) Least impact on MCO P5000.10 existing procedures.

(2) In a position to weigh total Marine Corps operational requirements.

(3) Represents the "user" or "advocate."

(4) Direct line to the Chief of Staff.

B. Disadvantages.

(1) Would require a staff of technical and support personnel to manage daily activities.

(2) The ASPO has other projects besides the LVA.

(3) Not compatible with traditional Service or commercial industry successful acquisition structures; i.e., sponsor vs. developer.

(4) No technical expertise available.

Alternative #3. Establish point of contact within DC/S, RD&S.

A. Advantages.

(1) Control of RDT&E appropriation.

(2) Assessment of total R&D effort available.

(3) Direct line to the Chief of Staff.

(4) Compatible with traditional service or commercial industry successful acquisition structures for R&D phase of acquisition.

(5) Minor impact on "spirit and intent" of MCO P5000.10.

B. Disadvantages.

(1) Would require a staff of technical and support personnel to manage daily activities.

(2) Development Coordinator has other programs.

(3) "Layering" induced by existing RD&S and MCDEC relationships. Specifically, RD&S has the authority, MCDEC has the responsibility.

Alternative #4. Establish point of contact within DC/S, I&L.

A. Advantages.

(1) Technical expertise and previous amphibian tracked vehicle experience available.

(2) LVA-dedicated staff available.

(3) Cross-fertilization between staff currently directing LVTP-7 service life extension program.

(4) Controls PMC and O&MMC budget appropriations.

(5) Direct line to the Chief of Staff.

(6) Historical precedence (1963) under "old" Marine Corps organization (AC/S, G-4) for success.

B. Disadvantages.

(1) Significant departure from normal organizational structures, to include OSD, other service, and commercial practice of having developer perform R&D.

(2) Tentative impact of supportability totally controlling the design to achieve technical performance.

(3) Does not control RDT&E budget appropriation.

(4) Violates mission of DC/S, I&L as stated in formal directives.

(5) Requires modification of HQMC organization manual, MCO P5000.10, and Development Center responsibilities.

Alternative #5. Establish point of contact within the Development Center, at Quantico.

A. Advantages.

(1) Minor impact on MCO P5000.10 existing procedures.

(2) Technical and support staff dedicated to the LVA available.

(3) All amphibian matters (R&D) under one roof at Quantico (Mobility and Logistics Division, Development Center).

(4) Has responsibility for development explicity defined, up to and including 6.4.

(5) Has overview of all development activity with potential impact on amphibian tracked vehicles.

(6) Not inconsistent with traditional approach to R&D and Logistics organizational structures.

(7) Has AVTB directly under its control for development testing.

(8) Least impact on the Development Center mission and functions and HQMC organization.

(9) Easiest transitioning from LVA program to follow-on LVA program (LVA(X)) (not on drawing board at this writing).

B. Disadvantages.

(1) No control of budget appropriations.

(2) Chain of Command approval regarding decisions is time-consuming at Quantico level.

(3) Must go through HQMC (Code RD&S) to CMC for matters relating to R&D.

(4) No authority for decision-making.

(5) Physical dislocation from both the PDA and HQMC.

(6) Inconsistent with current command and staff lines of authority.

Alternative #6. Project Managership at the HQMC level.

A. Advantages.

(1) Compliance with DODD 5000.1.

(2) Ensures dedicated program effort, with authority, at the HQMC level.

B. Disadvantages.

(1) Costly in terms of efficient utilization of manpower resources.

(2) Set apart from present staff and functional organizations.

(3) Can not take advantage of existing manpower and functionally supporting organizational activities within the Navy's acquisition community.

(4) Provokes significant modification to all applicable existing CMC, HQMC, and MCDEC directives.

SECTION VIII

SUMMARY

A. SUMMARY OF CONCLUSIONS.

1. The amphibious mission of the Marine Corps, and the Marine Corps' responsibility for development of equipment related to the mission as stated in the National Security Act of 1947, at times requires a sense of extraordinary thinking and commitment.

2. The LVA is a complex and costly weapons system which qualifies as a major weapons systems acquisition in accordance with DODD 5000.1.

3. The centralized direction of control and authority recommended (and subsequently approved) in the 1963 staff study regarding Amphibian Tracked Vehicle management was successful with regard to the LVTP-7 development and introduction to the operating forces.

4. The HQMC reorganization and subsequent promulgation of MCO P5000.10 of 1974 (today's environment) do not lend themselves to the implementation of a "like 1963" manifesto without substantial modification to existing organizational structures, procedures, and directives.

5. It is the consensus of opinion among the interviewees, and my personal involvement in the LVA program, that "something needs to be done" to modify or reaffirm existing procedures for managing the LVA program within the Marine Corps. Firm program direction and control from one source is necessary.

6. Minimal "tailoring" of MCO P5000.10 is necessary (and possible), without violent upheaval of established organizational structures and official directives to ensure adequate, timely, and effective LVA program direction.

7. The current budget appropriation structure within HQMC need not be modified to reflect any recommended change to the current method of managing the LVA program.

8. The LVA program should not be projectized at the HQMC level.

9. Of the alternatives considered, two (2) represent the best possible courses of action technically (program direction provided by either DC/S, I&L, HQMC or the Development Center, Quantico); however, only one (1) establishes itself as the alternative with minimal impact on current organizational structures (HQMC and Quantico), and current mission and functions (HQMC and Quantico), without considerable realignment of personnel resources to effectively manage the LVA program within existing guidance contained in MCO P5000.10.

10. Any point of contact/alternative selected will only be effective if the internal command and staff structure authorizes, and gives responsibility for, decision-making at a practicable level without interference.

B. RECOMMENDATIONS

1. That the LVA program be managed within the Development Center, Quantico, Virginia.

2. That the current DPO at Quantico be entitled, "LVA Single Point of Contact (SPOC)".

3. That the DC/S, O&T initiate correspondence to the DC/S, RD&S specifying this arrangement and provide for authorization for the LVA SPOC to speak for the Program Sponsor with regard to management of the program.

4. That DC/S, RD&S specifically expand the guidance from DC/S, O&T to preclude the "layering" of its review authority in the decision-making process and allow the LVA SPOC maximum flexibility in pursuance of the LVA program objectives.

5. That CMC initiate an LVA Program charter* to include, but not be limited to, the following:

*NOTE: A proposed charter for the LVA SPOC may be found in Appendix B.

a. Authority to speak for the Program Sponsor (DC/S, O&T) in day-to-day management of the program and ensure a "user/producer" dialogue.

b. Authority for the LVA SPOC to exercise program direction without interference internally (CG, MCDEC) or externally (DC/S, RD&S).

c. Provide for the normal POM/budgetary review activity; however, once budget authorization has been received, program funds are "fenced" and available for allotment or commitment by the LVA SPOC.

d. Provide for information flow from the LVA SPOC to all staff and functional organizations having "need to know" regarding LVA development activity.

e. Provide for supportability of the LVA SPOC by functional and staff organizations within HQMC.

f. Designate, by name, those responsible for providing the specific support to the LVA SPOC.

g. Ensure that Operational Testing be accomplished independent of the developing agency and reports be made directly to the Chief of Staff without chain of command endorsement.

h. To solve any problems at the Acquisition Coordinating Group Level, the Chief of Staff will be the ultimate authority. For example, a problem between the developer (LVA SPOC) and the (APO, DC/S, I&L representative). If not reconcilable, the problem should be referred to the Chief of Staff for decision.

i. Provide for transition of the LVA program to the DC/S, I&L cognizance prior to Milestone III (production decision). A detailed transition plan should be developed concurrently with the initiation of full-scale engineering development.

j. Ensure that the Principal Development Activity (PDA) is advised that the LVA SPOC represents the Marine Corps in LVA matters (until changeover to DC/S, I&L cognizance).

k. Ensure that the PDA understands that no effort regarding the LVA is to be undertaken without the prior consent, knowledge or approval of the LVA SPOC.

l. Ensure that RDT&E funds are not to be committed regarding LVA-related studies/matters without the prior knowledge and/or consent of the LVA SPOC.

m. Ensure that all studies or efforts by a functional staff organization, relating to accomplishment of its mission or function in support of the LVA program, be cleared through the LVA SPOC.

n. Establish the LVA SPOC as a Colonel with authority to report directly to the Chief of Staff, through CG, MCDEC, as necessary in fulfillment of his responsibilities.

APPENDIX A

ABBREVIATIONS

ACG	Acquisition Coordinating Group
AC/S	Assistant Chief of Staff
APO	Acquisition Project Officer
APS	Acquisition Program Sponsor
ASPO	Acquisition Sponsor Project Officer
AVTB	Amphibian Vehicle Test Branch
BUSHIPS	Bureau of Ships
CG, MCDEC	Commanding General, Marine Corps Development and Education Command
CNM	Chief of Naval Material
CMC	Commandant of the Marine Corps
CMCLFDA	Coordinator, Marine Corps Landing Force Development Activities
DC	Development Coordinator
DC/S	Deputy Chief of Staff
DEVCTR	Development Center
DIR, DEVCTR	Director, Development Center
DOD	Department of Defense
DODD	Department of Defense Directive
DPO	Development Project Officer
FYDP	Five Year Defense Program
HQMC	Headquarters, Marine Corps
I&L	Installations and Logistics
ILS	Integrated Logistics Support
ILSP	Integration Logistics Support Plan
IOC	Initial Operational Capability
LVA	Landing Vehicle Assault
LVTP	Landing Vehicle Tracked, Personnel
LVTPX	Landing Vehicle Tracked Personnel, Experimental
MCDEC	Marine Corps Development and Education Command
MCO	Marine Corps Order
M&L DIV	Mobility and Logistics Division
MSARC	Marine Corps Systems Acquisition Review Committee
NAVMAT	Naval Material Command
NAVSEA	Short Term for Naval Sea Systems Command
NAVSEASYSCOM	Long term for Naval Sea Systems Command
NAVSHIPS	Short term for Naval Ship Systems Command
NAVSHIPSYSCOM	Long term for Naval Ship Systems Command

O&MMC	Operations and Maintenance, Marine Corps
O&T	Operations and Training
PDA	Principal Development Activity
PM	Project Manager
PMC	Procurement, Marine Corps
POM	Program Objectives Memorandum
PMS	Project Manager, Ships
PPBS	Planning, Programming and Budgeting System
RDT&E	Research, Development, Test and Evaluation
RD&S	Research, Development and Studies
SPOC	Single Point of Contact
T&E	Test and Evaluation
TSOR	Tentative Specific Operational Requirement
USMC	United States Marine Corps

APPENDIX B

PROPOSED CHARTER

Single Point of Contact (SPOC) Charter
Landing Vehicle Assault (LVA)

I. DESIGNATION OF LVA SPOC. Colonel _____, USMC is designated Single Point of Contact (SPOC) for the LVA effective this date. The SPOC reports to the Marine Corps Chief of Staff through the Commanding General, Marine Corps Development and Education Command.

II. SYSTEM DESCRIPTION. The SPOC is responsible for the LVA weapons system program through the Full-scale Engineering Development phase (6.4) of the weapons system acquisition process and for all LVA-related tasks within the Marine Corps. The SPOC is the single point of contact for all guidance and direction with respect to the program. The system includes, but is not limited to, the LVA hull, track and suspension subsystems, main and secondary armament, armor suite, engine and transmission, communications and electronics equipment, and all ancilliary equipment, such as on-vehicle equipment (OVE) and on-vehicle material (OVM) and includes the necessary training devices and equipment to facilitate Fleet Marine Force introduction at IOC.

III. AUTHORITY AND RESPONSIBILITIES. The SPOC is accountable to the CG, MCDEC and through him to the Chief of Staff. The SPOC is responsible for the following:

A. Planning, directing, and controlling the allotment and commitment of all resources authorized for execution of the approved program.

B. Supervising the achievement of the technical performance objectives of the program, as stated in the requirements documents, on schedule, and at the lowest practicable, affordable cost.

C. Ensuring that cost parameters are established which consider the cost of acquisition and ownership.

D. Ensuring that practical trade-offs are made between capability, cost and schedule within bands of performance as stated in the requirements documents and that full consideration is given to ILS elements.

E. Exercising continuous supervision of technical, management and financial controls.

F. Ensuring that a total program budget is developed, maintained, and justified. The SPOC will coordinate all data reflecting this responsibility in support of the Marine Corps input to the PPBS process. All funds designated for the program, including the RDT&E (6.3 through 6.5), PMC, and O&MMC appropriations, will be assigned by appropriation sponsors in accordance with the over-all financial plan developed by the SPOC. Changes in the plan and reprogramming of budgeted funds, except those directed by higher authority, will be made only with the approval of the SPOC.

G. Planning for 6.1 and 6.2 program related efforts pursued by the Chief of Naval Research and Chief of Naval Material, respectively, in support of the Marine Corps. Planned tasks will be forwarded through normal staff action as provided for in current directives; however, this will be for information and coordination only. Tasks may not be disapproved unless there are obvious areas of duplication.

H. Maintaining close and continuous liaison with the Principal Development Activity (PDA), NAVSEASYSCOM, with regard to 6.1 and 6.2 efforts which may be LVA-related and which may be requested by the PDA in support of his technical responsibility for the program.

I. Ensuring appropriate assessment of program progress and timely report of same to higher authority.

J. Conducting trade-off and cost-effectiveness analyses within the cost, performance, and schedule parameters in approved program documents.

K. Assuring that all program planning is coordinated and integrated and that, except as otherwise directed, the execution of the program conforms to the plan, including implementation by other Marine Corps functional agencies/staff sections or other Service organizations responsible for complementary functions of R&D, ILS, initial procurement, production, operational testing, and activation or deployment of the system and its related equipment.

L. Ensuring that information flow is timely and continuous between and among all HQMC staff agencies having functional cognizance of selected program aspects.

M. Ensuring that the Program Sponsor (DC/S, O&T) is kept informed and advised when program related tasks may experience consequences impacting on the capability to provide the weapon system as definitized in requirements documents.

IV. OPERATING RELATIONSHIPS.

A. The SPOC reports to the Chief of Staff through the Commanding General, Marine Corps Development and Education Command.

B. The SPOC maintains a close and continuous monitoring relationship with, and provides direction, as necessary, to the PDA.

C. Any conflicts between the SPOC and supporting functional agencies will be reconciled by the Acquisition Coordinating Group. Ultimate decision authority is the Chief of Staff.

D. HQMC staff agencies perform assigned missions and functions; however, all efforts relating to the LVA will be coordinated with the SPOC.

V. ORGANIZATION AND STAFFING.

A. The LVA SPOC office will be located within the Mobility and Logistics Division, Development Center, MCDEC, Quantico.

B. The SPOC office will be organized under the SPOC for the LVA. Minimally, the staff should be capable of performing the program mission with a systems engineer, an assistant for plans and programs, a deputy for logistics, and a business/financial assistant.

C. Any requirements for additional personnel will be requested in accordance with normal procedures, will be fully justified, and, if possible, will identify compensatory reductions.

VI. SUPPORT.

A. Director, Development Center. Provides administrative support and makes functional resources available for the pursuance of LVA-related development and testing activity.

B. DC/S, I&L. Specifies a Deputy for Logistics to the SPOC's office. Continues to perform PMC and O&MMC budget appropriation and POM coordinating functions.

C. DC/S, RD&S. Coordinates LVA-related studies as requested by the SPOC. Continues to perform RDT&E budget appropriation and POM coordinating functions.

D. All HQMC staff agencies. Continue to provide LVA program support in those areas of responsibility in the normal weapons system acquisition process. Provide the SPOC with information in sufficient detail to permit him to coordinate and integrate the over-all program and report on project status, schedules, problem areas, and cost. The SPOC will provide each appropriation budget coordinator with information necessary to allow for the consolidation of standard budget exhibits.

VII. PROGRAM TRANSITION OR DISESTABLISHMENT.

A. The SPOC's charter will be reviewed annually, and when any major event occurs in the status of the program, to determine its currency, adequacy, and/or continuance.

B. The program will transition from SPOC cognizance to the DC/S, I&L at such time or suitable event during Full-scale Engineering Development prior to Milestone III (production decision). Upon transitioning, normal Marine Corps weapons system acquisition policies and procedures apply.

LIST OF REFERENCES

1. Tentative Specific Operational Requirement (TSOR), MOB-1.05T, Landing Vehicle Assault (LVA).

2. CMC Memorandum RD-3-mrc of 13 May 1975; Subject: Acquisition Decision Memorandum: Landing Vehicle Assault (Special MSARC).

3. Commander, Naval Ships Systems Command Letter 03Z2/JLS, 3900, Serial 284 of 13 December 1973; Subject: LVA General Program Plan; submission of

4. NAVSEA Instruction 5400.17 of 31 March 1975; Subject: Charter for the Combatant Craft, Service Craft and Amphibian Acquisition Project (PMS 300).

5. Bahnmaier, William Walter, Marine Corps Systems Acquisition Management, A Case Study of the LVTP-7 Amphibian Tractor Program. Master's Thesis; U.S. Naval Postgraduate School, Monterey, CA, June 1974.

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8. CMC Letter A04F-wdw-5, 8410 of 24 March 1967; Subject: Establishment of Project Management Organization for the Marine Corps Landing Force Assault Amphibian Vehicle Program; request for.

9. Chief of Naval Material Letter MAT-0111: CHK of 27 May 1967; Subject: Establishment of Project Management Organization for the Marine Corps Landing Force Assault Amphibian Vehicle Program; request for.

10. MCO P5000.10, U.S. Marine Corps Systems Acquisition Manual, 24 June 1974.

11. Deputy Chief of Staff for Plans and Operations Memorandum POM32-ddt of 11 February 1975; Subject: Letter of Understanding Concerning the Day to Day Management of the LVTP7 Service Life Extension Program.

12. Interview held 10 February 1977 at HQMC with LT COL William Bahnmaier, USMC; Weapons System Action Officer, Operations Division, Operations and Training Department, HQMC.

13. Interview held 17 February 1977 at Quantico, Virginia with COL Hollis Dunn, USMC; Branch Head, Assault Amphibians, Development Center, MCDEC.

14. Interview held 17 March 1977 at Quantico, Virginia with MAJ Cal Frantz, USMC; Assault Amphibian Project Officer, Development Center, MCDEC.

15. Interview held 17 March 1977 at NAVSEASYSCOM with Mr. Frank Beverina, GS-14; Assistant Project Manager, Amphibians, NAVSEA (PMS-300A1).

16. Interview held 18 March 1977 at HQMC with LT COL Len Etcho, USMC; Development Coordinator, Development Branch, RD&S, HQMC.

17. Interview held 18 March 1977 at HQMC with Mr. John Selwood, GS-14; Engineer, Weapons Branch, Material Division, I&L Department, HQMC.

SUPPLEMENTARY

INFORMATION

Errata

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